

REMARKS/ARGUMENTS

A. Rejection of Claims 1-6, 8-9, 11-13 and 19-22 Under 35 U.S.C. § 102(b)

Pending claims 1-6, 8, 9, 11-13 and 19-22 stand rejected under § 102(b) as being anticipated by U.S. Patent No. 4,642,555 (Swartz). Applicants respectfully traverse the rejection. With respect to claim 1, Swartz does not disclose an input block to apply an input signal to a common input terminal of a sensing block. In this regard, the Office Action appears to state that the positive voltage connected to resistors 1 and 4 of Swartz must be provided inherently by a positive voltage providing means, and that such means is inherently an input block. Applicants respectfully disagree. Nowhere does Swartz disclose inherently or expressly how a positive voltage is provided to resistors 1 and 4; such voltage may be provided by a battery or other power supply. In contrast, claim 1 recites an "input block to apply an input signal". As described in the Specification, such an input block is not a mere power supply. E.g., Specification, p. 9.

For at least this reason, claim 1 and claims 2-6 and 8-9 depending therefrom are patentable over Swartz. For similar reasons claims 19-22 are also patentable.

Pending claims 11-13 are patentable, as claim 11 has been amended to include the limitations of claim 14 and claim 15, which was indicated as allowable.

With respect to claim 19, nowhere does Swartz disclose an input block to provide an input signal to a common terminal of a first capacitor and a second capacitor of a sensing block. In this regard, in Swartz there is no common terminal of the first capacitor and the second capacitor that is provided an input signal. Accordingly, claim 19 and claims 20-22 depending therefrom are patentable for this further reason.

Dependent claim 4 is further patentable as Swartz does not disclose an input block that applies a first signal during a first clock phase and a second signal during a second clock phase. In this regard, the Office Action contends that a trigger input (3, 6) meets the first and second signals. However, such signals are not provided to a common input terminal. Further, the Office Action contends that the positive voltage nodes of Swartz make up the common input terminal. Office Action, p. 5. Because the trigger inputs are provided to one shot multi vibrator and not to positive voltage nodes, Swartz does not disclose an input block coupled to apply a first signal to the common input terminal. For the same reasons, dependent claim 21 is further patentable.

Dependent claim 5 is further patentable as Swartz does not disclose a converting block that integrates a signal and provides first and second output signals. In this regard, neither integrator 40 nor integrator 41 outputs two signals. Thus neither integrator is a converting block to integrate a single sensed signal and provide two output signals therefrom. For similar reasons, claim 6 is further patentable.

Dependent claim 8 is further patentable because, as discussed above the Office Action states that capacitors 2 and 5 are part of a sensing block, not an input block. Office Action, p. 5. Thus these capacitors cannot be a first input capacitor and a second input capacitor. Dependent claims 9 and 22 are further patentable for the same reason.

B. Rejection of Claims 10 and 23-30 Under 35 U.S.C. § 103(a)

Pending claims 10 and 23-30 stand rejected under 35 U.S.C. § 103(a) over Swartz in view of U.S. Patent No. 5,528,520 (Kemp). With regard to claims 10 and 24, there is no motivation

to combine the references. In Kemp, a memory stores calibrating voltages. However, nowhere can such calibrating voltages used in Swartz. This is true at least for the reason that nothing in Swartz requires a calibrating voltage. As such, the proposed modification would change the principle of operation of Swartz, and thus the proposed combination is improper. MPEP §2143.01.

Further, neither Swartz nor Kemp teaches or suggests an input signal provided to a common terminal of a first capacitor and a second capacitor of a sensing block as recited by claim 19. Thus for at least this reason, claims 23 and 24 (which depend from claim 19) are also patentable over the proposed combination.

Regarding claim 25, there is no basis to modify Kemp such that a common input terminal of a sensing block exists. In this regard, the sensing block of Kemp is sensor 10 which includes two capacitors C_A and C_B connected in series. Providing an input to a common input terminal would utterly defeat the purpose of Kemp in which the separate input terminals alternately receive input signals. Thus for at least this reason the proposed combination is improper and claims 25-30 are patentable.

C. Allowable Subject Matter

Applicants gratefully acknowledge the indication that claims 7 and 15-18 would be allowable if rewritten in independent form. Claim 11 has been amended to include the limitations of claims 14 and 15. Claim 16 has been amended to depend from claim 11, and claims 13 and 17 have been amended to correct typographical errors. Thus claims 11-13 and 16-18 are allowed. In light of the above remarks, it is respectfully submitted that claim 1 from which claim 7 depends is also patentable and therefore claim 7 is patentable in its present form.

In view of these remarks, the application is now in condition for allowance and the Examiner's prompt action in accordance therewith is respectfully requested. The Commissioner is authorized to charge any additional fees or credit any overpayment to Deposit Account No. 20-1504.

Respectfully submitted,

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